

ABSTRACT

An effective random access control can be performed with a high throughput. A base station (11) communicates with mobile stations (12) by use of slotted ALOHA system. An offset time of 1.5 frames is established between upstream and downstream communication frames. If any of the upstream communication frames is available, the base station (11) notifies a transmission permission signal (I) by use of the corresponding downstream frame. If having data to be transmitted, a mobile station (12) in a reception state receives the transmission permission signal (I), switches itself into a transmission state, and transmits one frame of leading data by use of the upstream frame. If permitting continuous transmission of data following the leading data, the base station (11) transmits a continuous transmission permission information (P) to that mobile station (12), and transmits a transmission inhibition signal (B) to the other mobile stations (12) during that continuous transmission. When receiving the continuous transmission permission information (P), that mobile station (12) places itself in a transmission mode, and transmits the following data by use of a plurality of continuous frames of the upstream communication frames.